

NO:2 in the revised Listing is a protein sequence. A computer readable format of the Sequence Listing is also included herein. The information recorded in computer readable form is identical to the written Sequence Listing with the exception that the written Sequence Listing includes page numbers and a computer file identifier.

REMARKS

Claims 1-82 of the application have been considered in the Written Opinion. Of these, it has been acknowledged in the Opinion that claims 2, 3, 11-19, 24, 25, 28, 29, 31, 32, 34, 36, 38-54, 61, 62, 66, 72-79, 82 and 83 meet the novelty and inventive step requirement delineated in PCT Articles 33(2) and 33(3), respectively. Claims 1-82 have also been acknowledged as possessing industrial applicability.

Various claims stand objected to as lacking clarity under PCT Rule 66.2(a)(v) wherein it is asserted the claims are indefinite. Claims 1, 4-10, 20-23, 26-27, 30, 33, 35, 37, 55, 58-60, 63-65, 67, 70, 71, 80 and 81 have been objected to as being anticipated by Jin et al. [Mol. Gen. Genet., 257:319-329 (1998)]. Claims 55-60, 63-65, 67-69, 80 and 81 stand objected to as being anticipated by Woodage et al. [PNAS, 94:11472-11477 (1997)]. The objections and rejections of record will be discussed below. In view of this discussion, it is believed that the discussed rejections and objections have been overcome and that all PCT Rules and Articles have been complied with.

Turning now to the objection relating to claims 1, 4-10, 20-23, 26-27, 30, 33, 35, 37, 55, 58-60, 63-65, 67, 70, 71, 80 and 81 as being anticipated by Jin et al., this reference is relied on for teaching the isolation and characterization of the *hrp1⁺* gene which assertedly includes a chromodomain, a helicase domain and a DNA-binding domain. Jin et al. is further relied on for teaching that the protein encoded by the *hrp1⁺* gene acts as a negative regulator of cell growth. Although Jin et al. teaches that the gene in question produces a protein that may be involved in gene expression generally, and suggests that its function may relate to cell growth, it does not teach or suggest that it may be involved in regulating developmental identity.

There is no teaching or suggestion in Jin et al. of the recited claims that include a nucleic acid sequence that codes for a protein that has the recited domains and that functions to regulate developmental identity or of the recited methods that utilize such a sequence.

Turning now to the objection relating to claims 55-60, 63-65, 67-69, 80 and 81 as being anticipated by Woodage et al., this reference is relied on for teaching the characterization of the CHD family of proteins. Although it is taught in the reference that the sequence motifs found in the characterized genes may be involved in DNA repair, regulation of transcription, and modification of chromatin structure, there is no teaching or suggestion of the recited claims that include a nucleic acid sequence that codes for a protein that has the recited domains and that functions to regulate developmental identity or of the methods that utilize such a sequence.

The following claims stand objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6:

- (1) Claims 16 and 17 wherein it is asserted that no reference is made to a particular amino acid sequence when reciting "lysine 304". Claim 16 has been amended to correct this error.
- (2) Claims 28, 60, 62, 71, 72, 79-83 wherein it is asserted that the claims refer to the amino acid sequence of SEQ ID NO:1, but SEQ ID NO:1 is a nucleotide sequence. This has been corrected by reproducing the amino acid sequence listed in claim 1 as a separate sequence (SEQ ID NO:2) and making the appropriate amendments to the above-objected to claims, as well as claims 7-9, 19, 26-27, 58, 70 and 75, to refer to the appropriate sequence identifier. These amendments are found on substitute pages 51, 52, 53, 58, 60 and 61. A revised Sequence Listing, and computer readable format of same, incorporating SEQ ID NO:2 in the Listing is also included herein. No new matter is introduced into the application by such clerical changes.
- (3) Claims 55-57 wherein it is asserted that the recitation of "identity.SEQ ID NO:1;" does not make sense. Applicant has amended claim 55 to correct this typographical error. This amendment may be found on substitute page 57.

- (4) Claims 18, 24, 47, 78 wherein it is asserted that the term "PKL" renders the claims indefinite because it is not clear which PKL protein the claims are referring to. However, one skilled in the art would clearly understand the term "PKL" in light of the specification as it is described in detail therein. For example, SEQ ID NO:2 shows one preferred embodiment of PKL, but variants of the polypeptide which function in regulating developmental identity are included as described on page 10, lines 27-29. A description of such sequences may also be found, for example, on pages 11-13 of the specification.
- (5) Claim 76, wherein it is asserted that "said nucleotide sequence" in lines 1-2 and in line 3 render the claim indefinite as the claim seems to indicate that the nucleotide sequence is complementary to itself. Applicant has amended claim 76 as seen in substitute page 60.
- (6) Claim 24, wherein it is asserted that there is an issue regarding antecedent basis, but there is no description of what the problem is. Applicant has reviewed claim 24 and amended it by changing its dependency to claim 18 to overcome any potential issue regarding antecedent basis. This amendment may be found on substitute page 53.
- (7) Claims 2 and 43, wherein it is asserted that the claims are identical. Applicant notes that the claims are dependent on independent claims which differ from each other. As these claims include all of the limitations of the independent claim from which they depend, and these independent claims are different, claims 2 and 43 are not identical to each other.

Applicant foregoes making any other comments or amendments as the laws of the countries in which the application will be nationalized in may vary.

In light of the foregoing, establishment of an International Preliminary Examination Report which is positive in all respects as to claims 1-82 is respectfully requested.

Respectfully submitted

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Enclosures

Substitute Pages 10-12, 24, 26, 31, 42-48, 52, 53, 57, 58, 60, 61
Sequence Listing (written form and computer readable form)